CLAIMS

1. Niobium powder which has a capacitance (CV value at a formation voltage of 20V) ranging from 80 to 240 kCV/g and a CV retention of 57% or higher when formed into a sintered body of 3.15 to 3.9 g/cm^3 density.

2. The niobium powder according to claim 1, wherein the capacitance ranges from 80 to 120 kCV/g and the CV retention is 84% or higher.

3. The niobium powder according to claim 1, wherein the capacitance ranges from 120 to 160 kCV/g and the CV retention is 75% or higher.

4. The niobium powder according to claim 1, wherein the capacitance ranges from 160 to 240 kCV/g and the CV retention is 57% or higher.

5. The niobium powder according to any one of claims 1-4, wherein a percentage of pore having a diameter of 0.11 μm or greater, measured by mercury porosimetry, with respect to all pores present in the sintered body is 90 vol% or greater.

6. The niobium powder according to any one of claims 1-5, wherein a total amount of nickel, iron and chromium contained is 100 ppm or less, and a total amount of sodium, potassium and magnesium contained is 100 ppm or less.

7. A method of producing niobium powder, comprising the step of:

reducing potassium niobate fluoride in a diluent salt to produce niobium powder, wherein

the potassium niobate fluoride has a water content of 1000 ppm or less as

determined from an amount of water generated upon heating at 600°C according to the Karl Fischer method.

8. The method of producing niobium powder according to claim 7, wherein the diluent salt is potassium fluoride having a water content of 500 ppm or less as determined from an amount of water generated upon heating at 700°C according to the Karl Fischer method.

9. The method of producing niobium powder according to claim 7 or 8, wherein an amount of water in a reaction system of the reducing step is adjusted to be 9300 ppm or less with respect to the niobium powder produced.

10. A method of producing niobium powder by reducing potassium niobate fluoride in a diluent salt to produce niobium powder, comprising the steps of:

introducing 1 to 20% of stoichiometric equivalence of a reducing agent in a reduction reaction into a reaction vessel in advance, and

adding a predetermined amount (reaction equivalent) of potassium niobate fluoride and the reducing agent, in that order, and repeating this process to carry out a reaction.

11. A sintered body which is formed from the niobium powder as defined in any one of claims 1-6.

12. An anode for a capacitor which is formed from the niobium powder as defined in any one of claims 1-6 having a relative leakage current value (Wet value) of 4 nA/CV or less.

13. A solid electrolytic capacitor, comprising an anode for a capacitor as defined in claim 12.